PRODUCTION OF HIGH-PURITY MALTOSE AND REDUCED MATERIAL THEREOF

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PURPOSE:To obtain high-purity maltose or high-purity maltitol useful as foods or various raw materials by treating a liquefied starch with two or more specific kinds of enzymes to increase the maltose purity in the solid component and saccharifying with a prescribed maltogenic-alpha-amylase. CONSTITUTION:Corn starch, potato starch, etc., are liquefied with a commercially available heat-resistant liquefaction enzyme using e.g., a jet cooker and the liquefaction enzyme is preferably deactivated at about DE 5-15. The liquefied starch liquid is saccharified with two or more kinds of enzymes selected from beta-amylase, isoamylase and pullulanase at 55-60 deg.C until the maltose purity in the solid component reaches >=70wt.%. The saccharified product is added with a maltogenic-alpha-amylase and further saccharified until the product becomes to satisfy the formula.; The saccharification is performed preferably at 50-60 deg.C and about pH4.5-6.5 adding 1-20u of the enzyme per 1g of the solid component of the substrate. A high-purity maltose having a maltose purity of about 80-90% is produced by this process and the product can be converted into a high-purity maltitol by conventional reduction process.